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EXAMINER

DANG, HUNG Q

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 01/21/2009 have been fully considered but they are not persuasive.

On page 2, Applicant argues Wee does not disclose or suggest the limitations of “modifying the bitstream in the compressed domain based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic, and wherein if the frame characteristic of said at least one video frame is the second characteristic, decoding said at least one video frame and at least one of said preceding video frames for providing a plurality of decoded video frames prior to said modifying” as follows.

In response, the Examiner respectfully disagrees.

Wee discloses the bitstream to include a sequence of I frames, P frames, and B frames. Thus, the frame characteristics include: whether a frame is encoded as an I frame (corresponding to the first characteristic), or whether a frame is encoded as a P frame, or whether a frame is encoded as a B frame (corresponding to the second characteristic). If it is an I frame, which corresponds to the first characteristic, Wee discloses the modification is performed in the compressed domain at column 12, line 36 - column 13, line 20. Specifically, at column 13, lines 5-20, Wee clearly teaches converting the I frame by simply manipulating directly the DCT coefficients without decoding the any frame. It is noted that DCT coefficients represent the frame data in

compressed or frequency domain. Therefore, Wee is clearly teaching modifying the stream in the compressed domain in this context.

Further, at column 11, lines 9-32, Wee disclose if the frame is identified as a P frame or a B frame (i.e. of second characteristic), then one or more preceding frames, which the P frame or B frame temporally depends on, are decoded along with that at least one video frame before the bitstream is modified to remove such dependencies. For example, in the case of the bitstream $B_1B_2I_3P_4B_5P_6B_7B_8P_9I_{10}$, if the frames $P_6B_7B_8P_9I_{10}$ were simply cut, the first three frames $P_6B_7B_8$ could no longer be accurately decoded because they would all depend upon the prior missing I_3 frame or P_4 frame. Therefore, $P_6B_7B_8$ must be decoded to the image domain then recorded in such a way that they no longer depend on the previous I_3 frame or P_4 . However, **in order to decode $P_6B_7B_8$ successfully to image domain, the previous I_3 frame or P_4 must also be decoded to image domain.**

To further illustrate the Examiner's point of view, the Examiner also would like to submit that, in the example given on pages 2-3 of Applicant's Remarks, the Applicant is correct in stating that in order to cut the sequence of $P_4B_5P_6I_7B_9B_{10}$ out of the sequence of $B_1B_2I_3P_4B_5P_6I_7B_9B_{10}$, P_4 is converted to I_4 . However, Applicant has erred in implying that Wee does not disclose the limitation regarding to part of the preceding frames. In the example given by the Applicant, the preceding frames are $B_1B_2I_3$. This is because in order to successfully convert P_4 to an I_4 (intra-frame encoded version of P_4), P_4 must be decoded. But **the step of decoding P_4 requires decoding of I_3 , which P_4 depends on.** Specifically, before modifying by appending, the decoding and encoding of P_4

should be performed first by decoding I_3 , then decoding P_4 , then encoding P_4 to an I_4 . Therefore, "at least one of said preceding video frames" is/are also decoded. As such, the limitation of claim 3 is clearly disclosed by Wee.

On page 3, regarding claims 35, 43, and 49, Applicant argues that Wee fails to disclose the limitation of "if the frame characteristic of said at least one video frame is the second characteristic, at least one of the preceding video frames are decoded, the last decoded frame is encoded prior to modifying part of the video frame data." In response, the Examiner respectfully submits that this argument is incorrect in view of the discussion of Wee above.

Therefore, Wee clearly discloses the limitations of the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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